

CLAIMS

I claim:

1 1. A heart rate monitor, comprising:
2 a housing;
3 a microcontroller having a heart rate algorithm programmed
4 therein disposed within said housing;
5 a heart rate input device communicating with said
6 microcontroller; and
7 a heart rate color display field disposed upon said housing,
8 displaying one of a plurality of colors homogeneously and
9 uniformly over said color display field according to signals
10 received from said microcontroller and according to heart rate
11 input processed by said microcontroller from said heart rate input
12 device.

1 2. The heart rate monitor according to claim 1, further
2 including a user variable input device disposed upon said housing
3 and communicating with said microcontroller.

1 3. The heart rate monitor according to claim 2, wherein
2 said user variable input device is configured for at least one
3 user variable selected from the group consisting of age, gender,
4 height, weight, and fitness activity level.

1 4. The heart rate monitor according to claim 2, wherein:
2 said housing comprises a case configured for wearing upon
3 the wrist of a user;
4 said case further includes a wrist strap extending
5 therefrom; and
6 said user variable input device comprises a rotating bezel
7 disposed about said case.

1 5. The heart rate monitor according to claim 4, wherein:
2 said case includes a plurality of radially disposed
3 electrical contacts communicating with said microcontroller; and
4 said rotating bezel includes an internal electrical contact,
5 selectively communicating with said plurality of electrical
6 contacts within said case.

1 6. The heart rate monitor according to claim 2, wherein:
2 said housing comprises a stand extending upwardly from a
3 stationary exercise machine; and
4 said user variable input device comprises a keypad disposed
5 upon said stand.

1 7. The heart rate monitor according to claim 1, wherein:
2 said microcontroller determines which of said plurality of
3 colors is displayed upon said color display field in accordance
4 with the Karvonen formula; and
5 said plurality of colors comprise blue corresponding to a
6 heart rate range of from fifty to sixty percent of the base heart
7 rate, green corresponding to a heart rate range of from sixty to
8 seventy percent of the base heart rate, red corresponding to a
9 heart rate range of from seventy to eighty percent of the base
10 heart rate, yellow corresponding to a heart rate range of from
11 eighty to ninety percent of the base heart rate, and black
12 corresponding to a heart rate range of from ninety to one hundred
13 percent of the base heart rate.

1 8. A heart rate monitor, comprising:
2 a case configured for wearing upon the wrist of a user;
3 said case further including a wrist strap extending
4 therefrom;
5 a microcontroller having a heart rate algorithm programmed
6 therein, disposed within said case;
7 a heart rate input device, communicating with said
8 microcontroller; and
9 a heart rate color display field disposed upon said case,
10 displaying one of a plurality of colors homogeneously and
11 uniformly over said color display field according to signals
12 received from said microcontroller and according to heart rate
13 input processed by said microcontroller from said heart rate input
14 device.

1 9. The heart rate monitor according to claim 8, further
2 including a user variable input device disposed upon said case,
3 and communicating with said microcontroller.

1 10. The heart rate monitor according to claim 9, wherein
2 said user variable input device comprises a rotating bezel
3 disposed about said case.

1 11. The heart rate monitor according to claim 10, wherein:
2 said case includes a plurality of radially disposed
3 electrical contacts communicating with said microcontroller; and
4 said rotating bezel includes an internal resistor,
5 selectively communicating with said plurality of electrical
6 contacts within said case.

1 12. The heart rate monitor according to claim 9, wherein
2 said user variable input device is configured for at least one
3 user variable selected from the group consisting of age, gender,
4 height, weight, and fitness activity level.

1 13. The heart rate monitor according to claim 8, wherein:
2 said microcontroller determines which of said plurality of
3 colors is displayed upon said color display field in accordance
4 with the Karvonen formula; and

5 said plurality of colors comprise blue corresponding to a
6 heart rate range of from fifty to sixty percent of the base heart
7 rate, green corresponding to a heart rate range of from sixty to
8 seventy percent of the base heart rate, red corresponding to a
9 heart rate range of from seventy to eighty percent of the base
10 heart rate, yellow corresponding to a heart rate range of from
11 eighty to ninety percent of the base heart rate, and black
12 corresponding to a heart rate range of from ninety to one hundred
13 percent of the base heart rate.

1 14. The heart rate monitor according to claim 8, further
2 including a user variable digital display disposed over said color
3 display field.

1 15. A heart rate monitor, comprising:
2 a stand extending upwardly from a stationary exercise
3 machine;
4 a microcontroller having a heart rate algorithm programmed
5 therein, disposed within said stand;
6 a heart rate input device, communicating with said
7 microcontroller; and
8 a heart rate color display field disposed upon said stand,
9 displaying one of a plurality of colors homogeneously and
10 uniformly over said color display field according to signals
11 received from said microcontroller and according to heart rate
12 input processed by said microcontroller from said heart rate input
13 device.

1 16. The heart rate monitor according to claim 15, further
2 including a user variable input device disposed upon said stand
3 and communicating with said microcontroller.

1 17. The heart rate monitor according to claim 16, wherein
2 said user variable input device comprises a keypad disposed upon
3 said stand.

1 18. The heart rate monitor according to claim 16, wherein
2 said user variable input device is configured for at least one
3 user variable selected from the group consisting of age, gender,
4 height, weight, and fitness activity level.

1 19. The heart rate monitor according to claim 15, wherein:
2 said microcontroller determines which of said plurality of
3 colors is displayed upon said color display field in accordance
4 with the Karvonen formula; and

5 said plurality of colors comprise blue corresponding to a
6 heart rate range of from fifty to sixty percent of the base heart
7 rate, green corresponding to a heart rate range of from sixty to
8 seventy percent of the base heart rate, red corresponding to a
9 heart rate range of from seventy to eighty percent of the base
10 heart rate, yellow corresponding to a heart rate range of from
11 eighty to ninety percent of the base heart rate, and black
12 corresponding to a heart rate range of from ninety to one hundred
13 percent of the base heart rate.

1 20. The heart rate monitor according to claim 15, further
2 including a user variable digital display disposed over said color
3 display field.